Case Report

Laparoscopic Resection of Accessory Cavitated Uterine Mass with A Coexisting Intrauterine Pregnancy: A Rare Entity

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Abstract
A 26 year old primigravida, was referred to our centre as a case of heterotopic pregnancy, at 8 weeks of gestation. She had lower abdominal pain and spotting per vaginum. Ultrasound done showed a homogeneous isoechoic well-defined mass was noted in the right adnexa between uterus and right ovary, with central echogenicity. Suspecting an acute abdomen, the patient was taken up for laparoscopy. On laparoscopy, there was a mass attached to the right anterior uterine wall, just beneath the insertion of the round ligament. The mass was dissected from the uterine-myometrial interphase in a circumferential manner since the mass had poorly delineated borders and sent for histopathology. The report was suggestive of Accessory and Cavitated Uterine Mass.

ABBREVIATIONS
ACUM: Accessory Cavitated Uterine Mass

INTRODUCTION
Accessory Cavitated Uterine Mass (ACUM) is a rare form of Mullerian anomaly, which was previously under recognized. Mullerian anomaly is linked to gubernaculum dysfunction or persistence of paramesonephric tissue, which occurs in premenopausal women with dysmenorrhea and chronic pelvic pain.

Ultrasound may be used in diagnosing this anomaly, although MRI is considered to be more specific. Presence of adenomyosis, for diagnosis is a must. The diagnosis is made, when there is a presence of an accessory cavity, with a functioning endometrium, in an otherwise normal uterine cavity [1,2].

The presence of a 2 to 4 cm lateral uterine wall mass at the level of insertion of round ligament, the mass filled with chocolate coloured fluid is the common presentation.

CASE PRESENTATION
A 26 year old primigravida, was referred to our centre as a case of heterotopic pregnancy, at 8 weeks of gestation. On arrival at our centre, she complained of severe right sided lower abdominal pain and two episodes of spotting per vaginum.

Ultrasound done showed a homogeneous isoechoic well defined mass was noted in the right adnexa between the uterus and right ovary, with central echogenicity (Figure 1). There was an intrauterine gestational sac with a yolk sac and fetal pole corresponding to 8 weeks of gestation, with no cardiac activity seen suggestive of a missed miscarriage. Left ovary and adnexa appeared normal (Figure 1). Suspecting an acute abdomen, the patient was taken up for laparoscopy.

On laparoscopy, there was a mass attached to the right anterior uterine wall, just beneath the insertion of the round ligament. Bilateral tubes and ovaries were normal (Figure 2). Dilute vasopressin was injected into the uterine serosa. A transverse incision was made over the anterior surface of the uterine mass - serosal interphase using Harmonic Ace scalpel. Chocolate coloured material was found draining from the mass (Figure 3). The mass was dissected from the uterine-myometrial interphase in a circumferential manner since the mass had poorly delineated borders (Figure 4). Hemostasis was achieved using bipolar electrocautery. Uterine cavity was not entered. Myometrial defect was sutured using 1-0 vicryl as continuous sutures in a single layer (Figure 5). The accessory cavity had no communication with the uterine cavity (Figure 6).

Suctioning of the uterine cavity was done in view of missed miscarriage. Post operative period was uneventful. Patient was discharged on post operative day three.

DISCUSSION
ACUMs are generally underdiagnosed and often reported as juvenile cysticadenomyoma but they are not adenomyosis [3].
names such as juvenile cystic adenomyoma (JCA), cavitated adenomyoma, accessory cavitated masses, etc., essentially representing the same entity now termed as ACUM [2]. Around 36 cases of ACUM have been reported in the literature. More cases are being identified, due to increased awareness about the presence of this condition. The criteria for diagnosing ACUM are: (1) an isolated accessory cavitated mass usually located under round ligament; (2) normal uterus, fallopian tubes, and ovaries; (3) a surgical case with excised mass and pathological examination; (4) an accessory cavity lined by endometrial epithelium with glands and stroma; (5) chocolate brown colored fluid contents; (6) no adenomyosis in the uterus (if resected), although there could be tiny foci of adenomyosis in the myometrium of the accessory cavity due to increased intracystic pressure (2). If fertility preservation is no longer desired, the dissection can greatly be expedited by performing a salpingectomy and skeletonizing the ACUM from the leaves of the broad ligament (1). ACUMs are hypothesized to represent a previously under recognized Müllerian anomaly linked to gubernaculum dysfunction that occurs in premenopausal women with dysmenorrhea and chronic pelvic pain. Uterine and fertility sparing laparoscopic resection is possible but challenging due to poorly defined planes.

**CONFLICT OF INTEREST**

The authors of this paper declare that they do not have any conflict of interest to declare. The authors do not have any affiliation or involvement in any organization or any entity with

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**Diagnosis of ACUM**

Diagnosis of ACUM is made accurate with the usage of MRI. The entity needs to be classified separately as the uterine cavity is otherwise normal unlike other Mullerian anomalies. It characteristically presents at a younger age, usually <30 years, with severe dysmenorrhea and chronic pelvic pain due to distention of the cavity caused by repeated bleeding.

Various authors have described such masses with different
The Ethics Committee was consulted and they have concluded that approval was not required for this study.

REFERENCES


financial interest. All the authors have seen and approved the manuscript submitted and we declare that this is our original work. We have not received any funding to publish this article.